El-Moasser Final Examinations

Model Exam 1

1 (A) Choose the correct answer :

1. Toy cars need energy to do all the following functions, <u>except</u> ....
   a. moving forward and backward. b. rotation in a circle.
   c. moving right and left. d. rotation around the moon.
2. Sand is formed due to breaking down of ....
   a. glass. b. wood. c. rocks. d. plastic.
3. Among forms of fuel that present in car fuel stations are ....
   a. gasoline and wood. b. natural gas and coal.
   c. wood and coal. d. gasoline and natural gas.
4. All of the following are examples of renewable energy resources, <u>except</u> ....
   a. fossil fuel. b. waterfalls. c. wind. d. sunlight.

(B) What happens if .... ?

Lichens growing on rocks produce acids.

2 (A) Put (✓) or (X) :

1. You need gasoline to move a bicycle. ( )
2. A solar panel consists of one small solar cell. ( )
3. Most of energy chains start with the moon. ( )
4. We cannot create a new form of energy, and also we cannot destroy an existed form of energy. ( )

(B) Correct the underlined word :

1. Deltas are formed by <u>weathering</u> process. (..........................)
2. <u>Dunes</u> are lowland areas which have gently sloped sides. (..........................)

3 (A) Write the scientific term for each of the following :

1. A device used to convert electrical energy into light energy. (..........................)
2. Natural resources of energy, that take a short period of time to be renewed. (..........................)
3. A natural movement of air that is resulted from the difference in temperature between cold and hot air. (..........................)
4. The energy produced from a battery. (..........................)

(B) Give a reason for the following :

We must turn off lights that we are not needed for a while.

....

Model Exam 2

1 (A) Choose the correct answer :

1. The input energy when using the hair dryer is the .... energy.
   a. electrical b. potential c. kinetic d. thermal
2. Water flows through turbines in dams to generate .... energy.
   a. electrical b. potential c. solar d. light
3. Fossil fuels need .... to be formed under the Earth's surface.
   a. five years b. ten years
   c. hundreds of years d. millions of years
4. The steps of forming fossil fuel, don't include .... of the remains of the living organisms.
   a. decaying b. cooling c. burying d. heating

(B) Give a reason for the following :

Iron inside rocks may rust.

....

....

2 (A) Complete the following sentences :

1. Both .... and .... are used to grind grains to make flour hundreds of years ago, but now we use them to generate ....
2. In any energy chain, some of the energy is lost in the form of ....
3. Wood and .... are examples of biofuel, while .... and .... are examples of fossil fuel.
4. When you ride a bicycle, the .... energy stored in your body is converted into .... energy which cause the bicycle to move.

(B) What happens if ... ?

A river erodes the sediments of a mountain over a long period of time.

....

....

3 (A) Correct the underlined words :

1. When the water of a river travels downhill on a steep slope, its speed <u>decreases</u>. (..........................)
2. The valleys have <u>steep</u> slope. (..........................)

Part 2

(B) Look at the following figures, then put (√) or (x) :



car (1)



car (2)

1. The movement of the two cars can be controlled from a distance by using a remote control. (   )
2. Car (2) use sunlight to move. (   )
3. The two cars can convert the chemical energy stored in their batteries into electrical energy. (   )
4. We can use an electric cable to recharge the battery that is placed in car (1) again if it runs out. (   )

Model Exam 3

1 (A) Choose the correct answer :

1. All the following are processes that can change the Earth's surface, <u>except</u> ....
   a. digestion. b. erosion. c. weathering. d. deposition.
2. Electric wires are made of ....
   a. copper. b. carbon. c. wood. d. glass.
3. All the following are forms of fuel, <u>except</u> ....
   a. wood. b. natural gas. c. gasoline. d. glass.
4. The Sun provides us with .... and ....
   a. sound – heat. b. light – electricity.
   c. sound – light. d. heat – light.

(B) Give a reason for the following :

The used amount of fossil fuel cannot be replaced as quickly as it is consumed.

....

2 (A) Correct the underlined words :

1. Curiosity is a robotic vehicle that is designed to explore the surface of <u>moon.</u> (..............)
2. Hydroelectric energy, is one of <u>non-renewable</u> energy resources. (..............)

3. Small solar panels are used to supply one light bulb with sound energy. (..................)

4. Toy cars depend on fuel as a source of electrical energy. (..................)

(B) What happens if ... ?

You turn on an electric fan. (according to the change of energy)

....

3 (A) Choose from column (B) what suits it in column (A) :

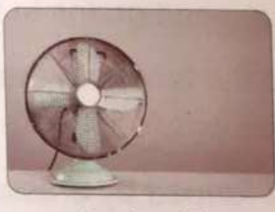
(A)	(B)
1. Water 2. Wind energy. 3. Coal. 4. The Sun	a. It needs extreme heat and pressure to be formed from remains of dead plants. b. It is the main resource of energy of the Earth's surface. c. It is gaseous renewable resource of energy. d. It is a liquid renewable resource of energy. e. It is a solid renewable resource of energy.

1. .... 2. .... 3. .... 4. ....

(B) Look at the following figures, then complete the following sentences :


Device (1)


Device (2)


Device (3)


Device (4)

1. The electrical energy used to operate devices number .... , ... and ....
2. Kinetic energy is produced in devices .... and ....

Model Exam 4

1 (A) Choose the correct answer :

1. All the following are renewable energy resources, except ....
   a. waterfalls. b. coal. c. the Sun. d. wind.
2. Hydroelectric energy is generated from ....
   a. waterfalls only. b. waterfalls and dams.
   c. biofuel only. d. biofuel and fossil fuel.
3. Both hair dryer and electrical water kettle produce .... energy.
   a. chemical b. thermal c. light d. potential

4. Some electric devices need .... energy to be recharged.
   a. electrical b. thermal c. potential d. sound

(B) Give a reason for the following :

Plants of wetland areas help in formation of deltas.

....

2 (A) Write the scientific term of each of the following :

1. A process in which water changes into water vapour. (..........)
2. The liquid that stores chemical energy, and it is used to move cars. (..........)
3. A fuel that is produced from remains of dead animals and plants under the Earth's surface. (..........)
4. It is a device that produces light from electricity. (..........)

(B) What happens if ... ?

The charge of remote controlled toy car batteries is running out.

....

3 (A) Put (✓) or (✗) :

1. Wind can pick up sand grains in forming sand dunes. ( )
2. Sand dunes are the landform that can be seen in both beach and sandy desert. ( )
3. Sand dunes are formed by erosion only. ( )
4. Sand travels for a short distance when wind blows with a great force. ( )

(B) Complete the following table :

	Used energy	Produced energy
1. 	.... energy	Light energy and .... energy
2. 	.... energy	.... energy

Model Exam 5

1 (A) Choose the correct answer :

1. When you use the hand bell, the .... energy changes into sound energy.
   a. light b. thermal c. kinetic d. electrical
2. Using convergent .... sheets in cooking food is one of the benefits of using the solar energy.
   a. paper b. plastic c. mirror d. wooden
3. River water evaporates by the help of heat produced from ....
   a. kettles. b. the Sun.
   c. electric heaters. d. electric iron.
4. Extreme heat and pressure under the Earth's surface has an important role in forming ....
   a. wood. b. wind. c. fossil fuel. d. biofuel.

(B) What happens to ... ?

The car fuel indicator if the amount of gasoline in a car decreases.

....

....

2 (A) Put (✓) or (✗) :

1. Deposition process never change the shape of the land. (   )
2. There is a stored chemical energy inside the food we eat. (   )
3. Machines make our life more easier. (   )
4. We have to conserve all forms of fuel. (   )

(B) Give a reason for the following :

Sunlight is very important for plants and animals.

....

....

3 (A) Complete the following sentences :

1. When we expose our bodies to the Sun we feel ....
2. The energy can be .... from one form to another.
3. Sediments are mixed with the remains of .... and .... forming layers at the bottom of oceans and lakes.
4. Blowing of strong .... in the desert may form large sand dunes.

(B) If the two wind turbines in front of you are affected by the different wind forces
Answer the following questions :

Weak wind



Wind turbine (A)

Strong wind



Wind turbine (B)

1. Which wind turbine spins faster ? (Give a reason for your answer).

....

....

2. Which wind turbine generates less electrical energy ?

....

Model Exam 6

1 (A) Choose the correct answer :

1. When a river meets a sea or an ocean, a landform known as .... is formed.
   a. canyon b. volcano c. mountain d. delta
2. Oil is a non-renewable energy resource that is used inside a ....
   a. flash light. b. car engine. c. electric fan. d. washing machine.
3. It takes several .... for a spacecraft to travel from Earth to Mars.
   a. seconds b. minutes c. days d. months
4. You feel warm when you rub your hands together, because .... energy changes into thermal energy.
   a. kinetic b. light c. electrical d. sound

(B) What happens if ...?

Sea creatures were buried under the Earth's surface over millions of years.

....

2 (A) Correct the underlined words :

1. Watermill turbines generate electricity by using the energy of <u>wind movement</u>. (..............)

2. Moon is the main source of energy on Earth. (..........................)

3. We need sound energy that comes from the Sun, for cooking foods and warming houses. (..........................)

4. Fossil fuel include oil, coal and wood. (..........................)

(B) Give a reason for the following :

Biofuel is considered as a renewable fuel.

....

3 (A) Put (✓) or (✗) :

1. Both canyons and valleys often have river in their bottom. (   )
2. The walls of valleys are vertical and steep. (   )
3. Deltas are formed as a result of silt deposition. (   )
4. The Nile River pour its water in the Red Sea. (   )

(B) Use the following words to complete the energy chains below. (you may use the same word more than once) :

(Thermal – Chemical – Kinetic – Electrical – Sound – Light)

1. The energy chain of burning some branches of a tree :

Solar energy (From the Sun) → converted into → .... energy (Stored inside the tree) → converted into → .... energy and .... energy. (When burning of wood)

2. The energy chain of electric blender.

Solar energy (From the Sun) → converted into → .... energy (The coal from the remains of dead trees) → converted into → .... energy and .... energy (In electric power stations) → converted into → .... energy (Transferred in electric wires) → converted into → .... energy and .... energy (In the electric blender)

Model Exam 7

1 (A) Choose the correct answer :

1. 40 million years ago, Wadi Al-Hitan was covered by ....
   a. rocks. b. sand. c. sea. d. mud.
2. Sound and .... energies are from output energies when operating the mobile phone.
   a. electrical b. potential c. chemical d. light
3. We can use the energy obtained from burning of wood directly in all of the following situations, except ....
   a. warming houses. b. operating television.
   c. cooking food. d. boiling water.
4. When land and water areas on Earth absorb the solar energy, the .... increases.
   a. temperature on Earth b. speed of rotation of Earth
   c. speed of rotation of moon d. speed of rotation of Sun

(B) What happens if ...?

The kinetic energy of wind applied to the wind turbines decreases.

....

2 (A) Write the scientific term of each of the following :

1. A type of mirrors that is used to direct sunlight onto metal utensils to heat them and cook the food inside. (..........)
2. It is a form of biofuel, that can be made from some types of plants such as grass and wood chips. (..........)
3. A turbine that converts the energy of flowing or falling water into electrical energy. (..........)
4. The energy produced from batteries. (..........)

(B) Give a reason for the following :

Some calculators use the sunlight to be operated.

....

3 (A) From your understanding of how electricity is generated in electric power stations. Put each of the following words in front of its suitable sentence :

1. Its movement produces kinetic energy. (..........)
2. It changes kinetic energy into electrical energy. (..........)

3. It is a type of nonrenewable resources of energy. (..................)
4. It is resulted from heating the water and it turns turbines. (..................)

(B) Look at the opposite picture, then complete the following sentences.



1. The name of this glass building is ....
2. The idea of working of this building depends on collecting the .... energy coming from the Sun.
3. The received energy is converted into .... energy that warms the inside of this building.
4. In the cold regions, this building allows farmers to plant crops that only grow in .... climates.

Model Exam 8

1 (A) Choose the correct answer :

1. Some kinetic energy is converted into .... energy due to friction of bike's tire with the road.
   a. light b. electrical c. potential d. thermal
2. Using water to generate electricity depends on places ....
   a. with strong winds. b. where dams are built on rivers.
   c. with weak winds. d. where boats sail in rivers.
3. Inside the electric power station, heating of .... produce steam.
   a. turbines. b. generators. c. water. d. fuel.
4. While playing guitar, the .... energy changes into sound energy.
   a. kinetic. b. light. c. chemical. d. potential.

(B) Give a reason for the following :

When you press on the spring of soap dispenser, the soap moves upward.
(according to the change of energy)

....

(A) complete the following sentences :

1. There are two types of weathering which are .... weathering and .... weathering.
2. Dams control the flow of .... , that causes the increase of the .... energy of water.

3. In some villages, solar panels are used to generate .... energy that is used to operate .... equipment.
4. Sand dunes are in continuous motion due to the movement of ....

(B) What happens if ... ?

You turn on the T.V. (according to the change of energy)

....

....

3 (A) Give one example for each of the following :

1. A renewable resource of energy : ....
2. A non-renewable resource of energy : ....
3. A method of conserving fossil fuel : ....
4. A disadvantage of using fossil fuel in energy production : ....

(B) Look at the following figures, then complete the following energy chain :



Figure (1)



Figure (2)

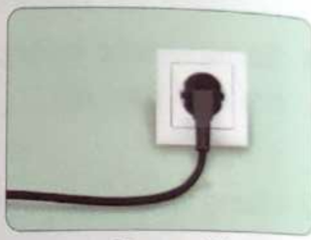


Figure (3)



Figure (4)



Figure (5)

Energy in figure .... → converted into → Chemical energy stored in figure .... → converted into → Thermal energy and kinetic energy in figure .... → converted into → Electrical energy that is travelled through figure .... → converted into → Thermal energy that is produced from the device in figure ....

Model Exam 9

1 (A) Choose the correct answer :

1. The output energy when playing drums is the .... energy.
   a. chemical b. light c. sound d. potential
2. If the rain falls over a canyon for several times per year, ...
   a. its depth increases. b. its depth decreases.
   c. it becomes flat. d. it is not be affected.
3. When the windmill blades rotates, this causes wind turbines to rotate and generating .... energy.
   a. electrical b. solar c. chemical d. potential
4. All the following are forms of fossil fuel, except ....
   a. water. b. coal. c. natural gas. d. oil.

(B) What happens if ...?

A generator in an electric power station is damaged.

....

....

2 (A) Put (✓) or (✗) :

1. Energy may be destroyed inside different devices. (   )
2. Grinding of biscuits by hands into fine powder has the same effect of mechanical weathering of rocks. (   )
3. The movement of a generator in electric power stations produces potential energy. (   )
4. The amount of oil on Earth is limited. (   )

(B) Write the scientific term of each of the following :

1. Process in which rocks are broken down into smaller particles. (......................)
2. Process in which small broken rocks move from a place to another by the help of wind or water. (......................)

3 (A) Complete the following sentences :

1. The origin of sand is the breaking down of some types of ....
2. The type of weathering in which the rocks are broken down due to the presence of plant roots is known as .... weathering.

3. The change of electrical energy into sound energy in the radio is an example that proves the law of ....

4. The natural resources that can be replaced shortly after being used are called .... resources of energy.

(B) Mention the input and output energies of the opposite device :

1. Input energy : ....

2. Output energy : ....



Model Exam 10

1 (A) Choose the correct answer :

1. Which of the following is a renewable energy resources ? ....
   a. Running bicycle. b. Running car.
   c. Running water. d. Running person.

2. Curiosity rover is designed to explore ....
   a. Earth planet. b. Mars planet. c. the Sun. d. the moon.

3. The change of energy in an .... is opposite to the change of energy in a wind turbine.
   a. electric bell b. electric heater c. electric iron d. electric fan

4. All the following factors play an important role in the formation of fossil fuel, except ....
   a. extreme pressure. b. extreme heat.
   c. the moon light. d. rocks and sediment.

(B) Give a reason for the following :

Coal is considered as a nonrenewable energy resource.

....

2 (A) Write the scientific term of each of the following :

1. The matter that produces steam on heating, which is used to turn turbines in electric power station. (..................)

2. A mill that is turned by water flow. (..................)

3. Process in which the sediments are dropped in a new location by the action of wind, water, ice and gravity. (..................)

4. The energy used to play a drum. (..................)

(B) What happens if ... ?

You put your hands near the lighted lamp.

....

....

3 (A) Correct the underlined words :

1. The amount of biofuel that is consumed, cannot be replaced as quickly as it is used. (...................)
2. Dams are built on rivers in order to generate solar energy. (...................)
3. The origin of sand is the breaking down of some types of glass. (...................)
4. Plant roots help in the formation of rocks. (...................)

(B) Look at these electric devices, then complete the following sentences :


Device (1)


Device (2)


Device (3)

1. Sound and light energies are produced in the device number .... and help it to do its function.
2. Kinetic energy is produced in devices number .... and ....
3. Noise from devices number .... and .... is wasted energy, because sound doesn't help the devices do their functions.
4. All of these devices are operated by .... energy that is transmitted from .... stations through wires.

PART 3

Model Examinations

El-Moasser Final Examination Models

Model Exam 1

1 (A) 1. d 2. c 3. d 4. a

(B) Minerals of rocks dissolve causing their breaking down.

---

2 (A) 1. (✗) 2. (✗)
3. (✗) 4. (✓)

(B) 1. deposition 2. valleys

---

3 (A) 1. Electric bulb.
2. Renewable resources of energy.
3. Wind.
4. Electrical energy.

(B) To conserve the electricity.

Model Exam 2

1 (A) 1. a 2. a 3. d 4. b

(B) Due to the reaction between iron and oxygen of air.

---

2 (A) 1. windmills – watermills – electricity.
2. heat.
3. charcoal – oil – coal
4. chemical – kinetic

(B) A canyon is formed.

---

3 (A) 1. increases 2. gentle

(B) 1. (✓) 2. (✗)
3. (✓) 4. (✗)

Model Exam 3

1 (A) 1. a 2. a 3. d 4. d

(B) Because fossil fuel is formed over millions of years.

---

2 (A) 1. Mars. 2. renewable
3. electrical 4. batteries

(B) Electrical energy changes into kinetic energy.

---

3 (A) 1. d 2. c 3. a 4. b

(B) 1. (2) – (3) – (4)
2. (3) – (4)

Model Exam 4

1 (A) 1. b 2. b 3. b 4. a

(B) Because they help in increasing the rate of deposition process.

---

2 (A) 1. Evaporation.
2. Gasoline.
3. Fossil fuel.
4. Electric bulb.

(B) We can recharge its batteries by connecting toy car to a nearby charger or replacing old batteries with new ones.

---

3 (A) 1. (✓) 2. (✓)
3. (✗) 4. (✗)

(B) 1. Solar – thermal
2. Kinetic – Electrical

Model Exam 5

1 (A) 1. c 2. c 3. b 4. c

(B) We have to stop at the nearest gas station to fill the tank of the car.

2 (A) 1. (✗) 2. (✓)
3. (✓) 4. (✓)

(B) Because without sunlight plants will die, and then the animals that eat them will die also.

3 (A) 1. warm. 2. changed
3. plants – animals
4. wind

(B) 1. (B), because it is affected by strong wind.
2. (A)

Model Exam 6

1 (A) 1. d 2. b 3. d 4. a

(B) Oil and natural gas are formed.

2 (A) 1. water flow. 2. Sun
3. solar 4. natural gas.

(B) Because it can be replaced shortly after it is used.

3 (A) 1. (✓) 2. (✗)
3. (✓) 4. (✗)

(B) 1. Chemical – Thermal – light
2. Chemical – Thermal – Kinetic – Electric – Kinetic – Sound

Model Exam 7

1 (A) 1. c 2. d 3. b 4. a

(B) The amount of produced electricity will decrease.

2 (A) 1. Concave mirrors.
2. Liquid fuel.
3. Water turbine.
4. Electrical energy.

(B) Because sunlight is converted into electrical energy which calculators use it to be operated.

3 (A) 1. Turbine 2. Generator
3. Coal 4. Steam

(B) 1. greenhouse. 2. radiant
3. thermal 4. warm

Model Exam 8

1 (A) 1. d 2. b 3. c 4. a

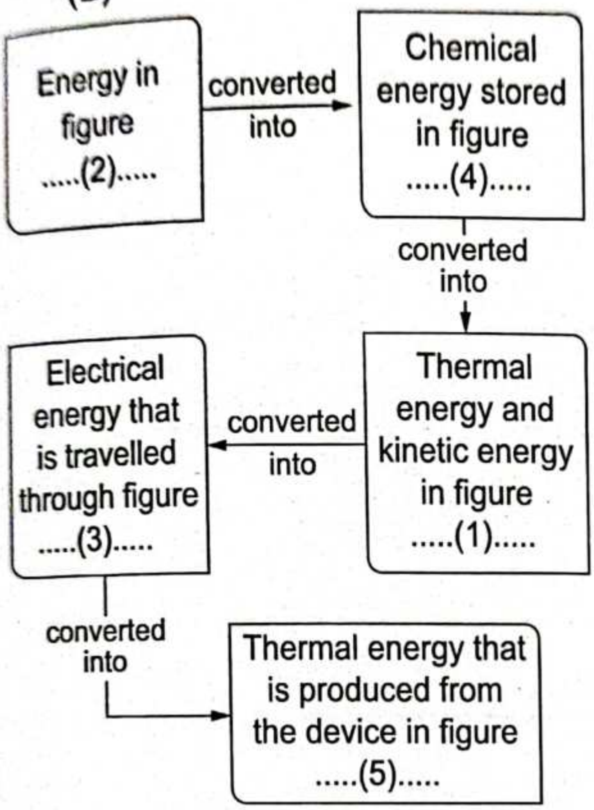
(B) Because the potential energy stored in the spring changes into kinetic energy that moves the soap upward.

2 (A) 1. mechanical – chemical
2. water – potential
3. electrical – irrigation
4. wind.

(B) The electrical energy is converted into sound energy and light energy.

3 (A) 1. The Sun. 2. Coal.
3. Walking or biking instead of driving a car.
4. Air pollution.

(B)



Model Exam 9

1 (A) 1. c 2. a 3. a 4. a
(B) It will not produce electrical energy.

2 (A) 1. (✗) 2. (✓)
3. (✗) 4. (✓)
(B) 1. Weathering 2. Erosion

3 (A) 1. rocks. 2. mechanical
3. conservation of energy.
4. renewable

(B) 1. Electrical energy.
2. Thermal energy.

Model Exam 10

1 (A) 1. c 2. b 3. d 4. c
(B) Because it is used at a rate faster than it can be renewed.

2 (A) 1. Water. 2. Watermill.
3. Deposition.
4. Kinetic energy.
(B) You feel warm, because some electrical energy is converted into thermal energy.

3 (A) 1. fossil fuel 2. electrical
3. rocks
4. decomposition
(B) 1. (2) 2. (1) – (3)
3. (1) – (3)
4. electrical – electric power

Model Exam 1

Question (1)

A Choose the correct answer:

1. .... is considered as the main resource of energy on the Erath's surface.
   a. Gasoline b. The sun c. Natural gas d. The moon.
2. .... energy is produced in a light bulb but it doesn't help it to do its function.
   a. Potential b. Chemical c. Thermal d. Light
3. In water turbines, the .... energy of water is changed into electrical energy.
   a. kinetic b. light c. thermal d. potential
4. All of the following are reasons of chemical weathering except ....
   a. lichens b. plant's roots c. acid rain d. oxygen gas

B Write the scientific term:

1. The wasted energy of a computer. (..................)
2. It is a type of fossil fuel that is produced from dead marine animals. (..................)

Question (2)

A Put (✓) or (✗):

1. Fast-moving rivers can cause a lot of erosion. (   )
2. Windmills can do their job all the time as the wind never stops blowing. (   )
3. Lichens grow on some rocks and produce acid as they grow. (   )
4. Sand dunes and valleys can be formed by rivers or streams. (   )

B Cross out the odd word:

Canyons – Sand dunes – Mudslide – Valley. (..................)

Question (3)

A **Choose from column (A) what suits it in column (B):**

Column (A)	Column (B)
1 Law of conservation of energy	a. It helps to grow crops that only grow in warm climates.
2 Greenhouse	b. Non-renewable energy source.
3 Coal	c. Energy is not destroyed, but is transformed from one form to another.

1 .... 2 .... 3 ....

B **Give reason:** Erosion and deposition are linked processes.

....

Model Exam 2

Question (1)

A **Choose the correct answer:**

1 .... may cause chemical weathering or mechanical weathering.
a. Lichens b. Oxygen c. Water d. Rocks

2 As energy transforms from one form to another, some of it is often lost as .... energy.
a. light b. heat c. sound d. sound

3 Hydroelectric energy is generated from ....
a. biofuel b. fossil fuel
c. waterfalls and dams d. a and b

4 An example of a renewable source of energy is ....
a. oil b. wind c. coal d. natural gas

B **Cross out the odd word:**

speed of river - age of river - name of river - size of river. (..........)

Question (2)

A Put (✓) or (✗):

1. Electricity generated by wind turbines is transmitted through wind. ( )
2. The sun is the primary source of forming both biofuel and fossil fuel. ( )
3. Deposition process takes place before erosion process. ( )
4. Canyons walls are not very tall and have a gentle slope. ( )
5. The input energy for the electric fan is wind. ( )

B Give reasons for: Earth's surface is always changing.

....

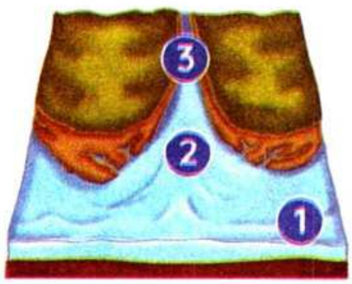
Question (3)

A Complete the following:

1. To operate an electric mixer, we use .... energy.
2. Renewable energy resources include .... and ....
3. Coal and .... can be used in electric power stations to generate electricity.

B Study the opposite figure, then select the number on the map where you think a delta will form:

....



Model Exam 3

Question (1)

A Choose the correct answer:

1. From the resources we are consuming at a faster rate than they are being created is ....
   a. wind b. water c. solar energy d. fossil fuel
2. One of the disadvantages of wind energy is that it ....
   a. is very expensive b. causes pollution
   c. does not blow sometimes d. needs electricity

3. .... of plant play an important role in the weathering process.
   a. Leaves b. Stems c. Roots d. Flowers
4. If you see an area with a lot of rain and Water flow, in the future .... may be formed.
   a. sand dunes b. delta c. canyons d. mountain

B Give reasons for:

The Delta in Egypt allows cultivating different types of crops.

....

Question (2)

A Put (✓) or (✗):

1. Mars is located a few meters away from Earth. (   )
2. Living organisms may cause mechanical and chemical weathering. (   )
3. Wind turbines were used in the past to grind grains. (   )
4. Understanding the formation of landforms helps predict future changes. (   )

B Write the scientific term:

1. A build on the river that controls the flow of water and increases the potential energy of water. (....................)
2. Special types of valleys with steep sides. (....................)
3. A hill of sand created by the wind. (....................)

Question (3)

A Complete the following sentences:

1. In many energy chains, some of the energy is lost in the form of ....
2. .... is an example of biofuel, while .... is an example of fossil fuel.

B What happens when: Your hand gets close to a lighting electric lamp.

....

Model Exam 4

Question (1)

A Choose the correct answer:

1. .... produce acids as they grow on rocks.
   a. Insects b. Plant's roots c. Beetles d. Lichens
2. .... used to convert solar energy into electrical energy.
   a. Wind turbines b. Water turbines c. Solar panels d. Windmills
3. Electric wires are made of ....
   a. wood b. copper c. iron d. plastic
4. .... is considered a renewable source of energy
   a. Coal b. Natural gas c. Water d. Fossil fuel

B Cross out the odd word:

Sea cows – Shark teeth – Deers – Turtles – Crocodilians. (..............)

Question (2)

A Write the scientific term:

1. Energy can neither be created nor destroyed, but only converted from one form to another. (..............)
2. It is a form of fossil fuel, which can be made from some types of plants such as grass and wood chips. (..............)
3. A panel designed to absorb the sun energy to generate electricity. (..............)
4. The process of moving rocks from one place to another. (..............)

B Give reason: Geologists examine the layers of sedimentary rocks.

....

Question (3)

A Put (✓) or (✗):

1. There is stored chemical energy inside the food we eat. (   )
2. Erosion like weathering can't be seen. (   )

3 A canyon is a type of valley. ( )

4 Electricity generated from water is called hydroelectricity. ( )

B Mention three factors affecting the shape of a valley.

....

Model Exam 5

Question (1)

A Choose the correct answer:

1 The energy produced by waterfalls and dams is called .... energy.

a. mechanical b. hydroelectric c. chemical d. kinetic

2 The force of .... pulls rainwater downhill and creates small streams.

a. wind b. air c. gravity d. sand

3 All the following are found deeply under the Erath´s surface, except ....

a. natural gas b. coal c. green plants d. oil

4 The energy produced from the radio, which expresses its main function, is .... energy.

a. electric b. sound c. light d. chemical

B Classify these situations by writing Letter (M) for mechanical weathering and (C) for chemical weathering:

1 Water freezes inside the cracks of rocks.

2 Water runs through limestone caves.

Question (2)

A Put (✓) or (✗):

1 Most of energy chains start with the moon. ( )

2 Solar panels consist of a lot of plant cells. ( )

3 Charcoal is formed from decomposition of dead ancient plants. ( )

4 The bigger the stream, the more erosion it causes. ( )

B **Give reason:** The batteries used to operate toys can't be used in operating the Curiosity Rover.

....

Question (3)

A **Complete the following:**

1. The energy produced from a battery and used to operate a toy car is .... energy.
2. The electric generator changes .... energy into .... energy.
3. Acidic rain has the same effect of acids produce from ....

B **How will this landform change over the next 100 years?**



....

....

Model Exam 6

Question (1)

A **Choose the correct answer:**

1. The form of energy resulted from a hair dryer that doesn't help it to do its function is .... energy.
   a. solar   b. heat   c. sound   d. electrical
2. Existence of rocks in different sizes is evidence of ....
   a. melting   b. weathering   c. erosion   d. deposition
3. The input energy for the Mars Exploration Vehicle is .... energy.
   a. electric   b. thermal   c. kinetic   d. solar

B **Arrange the following steps:**

a. (..............) Ice melts and water fills newly formed cracks.
b. (..............) Water freezes, expands and widens cracks.
c. (..............) The cycle of melting and freezing continues.
d. (..............) Water seeps into rock cracks

Question (2)

A Put (✓) or (✗):

1. Mixing of water with oxygen gas produces acid rain. (   )
2. Both electric bulb and electric heater produce thermal energy. (   )
3. When burning of fossil fuel increases, the temperature on Earth decreases. (   )

B Write the scientific term:

1. It is a phenomenon in which the Earth's temperature increases. (..................)
2. The kind of weathering that changes the structure and color of rocks. (..................)

Question (3)

A Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Generator	a. Is the energy produced from the device.
2 Input energy	b. Is made from wood.
3 Charcoal	c. Converts kinetic energy into electric energy.
	d. Is the energy consumed in the device.

1 .... 2 .... 3 ....

B Cross out the odd word:

Canyons – Mudslide – Valley – Delta. (..................)

Model Exam 7

Question (1)

A Choose the correct answer:

1. Both hair dryers and electric water kettles produce .... energy.
   a. thermal b. light c. electrical d. chemical
2. .... erode rocks and soil from their banks.
   a. Rivers b. Sea waves c. Rainwater d. Gravity
3. When .... energy of wind energy increases, the windmill blades spin faster.
   a. chemical b. kinetic c. potential d. electrical
4. .... consists of very fine bits of sand, clay or rock materials.
   a. Peddles b. Mud c. Slit d. Dune

B Mention the disadvantages of burning fossil fuels to generate electricity:

....

Question (2)

A Put (✓) or (✗):

1. When pedaling a bike, the chemical energy in your body changes to kinetic energy. ( )
2. Biofuel is one of the non-renewable resources of energy. ( )
3. We use solar energy to preserve food. ( )
4. Rocks becomes harder after rusting. ( )

B Give reason: During running, there is a change of energy inside your body.

....

Question (3)

A **Mention the process from these words:**

(Weathering - Erosion - Deposition)

1. Pulling of sand from beach. (..................)
2. Red-colored rock. (..................)
3. Formation of delta. (..................)

B **Mention two ways that may help in conserving water?**

....

Model Exam 8

Question (1)

A **Choose the correct answer:**

1. The power source for the electric fan is .... (wind- electricity)
2. The car needs .... to move. (fuel - water)
3. The distance moved by the sand grains depends on the .... of wind. (force – direction)
4. When a piece of coal is burnt, ... energy is produced. (potential - thermal)

B **Give reason:** Chemical weathering causes greater changes than physical weathering.

....

Question (2)

A **Put (✓) or (✗):**

1. Most caves are formed by mechanical weathering. (   )
2. Energy cannot be transformed from one form to another. (   )
3. As the speed of a car increases, the amount of used fuel decreases. (   )
4. Rivers store kinetic energy. (   )

B **Write the scientific term:**

1. The process of breaking a boulder into small rocks. (..................)
2. They are lowland areas between mountains. (..................)

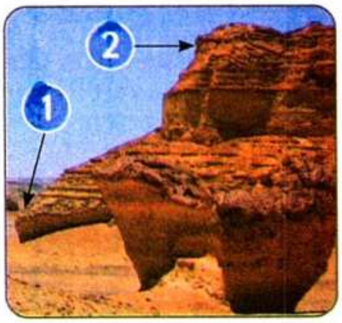
Question (3)

A **Choose from column (A) what suits it in column (B):**

Column (A)	Column (B)
1 Coal	a. Solar energy.
2 Water	b. Non-renewable source.
3 Wind turbine output energy	c. Electrical energy.
	d. Renewable source.

1 .... 2 .... 3 ....

B **The opposite figure shows Wadi El-Hitan, choose:**



1. The oldest rocks are found in number. (1-2)
2. This place where a (river- sea) was in the past.

Model Exam 9

Question (1)

A **Complete with the right answer from between the brackets:**

1. Modern wind turbines are .... the old vacuum mills. (longer than - shorter than)
2. Ancient people use .... as a form of fuel before discovering gasoline. (wind - wood)
3. .... may have strips and v-shaped landform. (Deltas - Canyons)
4. When you turn on a light bulb, the electrical energy travels through .... until reaching the bulb. (plastic – wires)

B **What happens if:** It rains a lot and water runs through the gully again.

....

Question (2)

A **Put (✓) or (✗):**

1. The energy chain of a burning candle is: chemical energy converted into thermal energy & light energy ( )
2. Acid rain causes soil and water pollution. ( )
3. The main difference between valleys and Canyons is the shape of side. ( )
4. The flow of water can be controlled to generate electricity in dams. ( )

B **Mention two ways to conserve electricity:**

....

Question (3)

A **Write the scientific term:**

1. The energy produced from playing the guitar. (..........................)
2. Natural resources of energy that takes a very long period of time to be formed. (..........................)
3. The device in electric power station that turns kinetic energy into electrical energy. (..........................)
4. Tiny-like plants living on rocks and producing acid as they grow. (..........................)

B **Give reason for:** Roots of plants play an important rule in delta formation.

....

Model Exam 10

Question (1)

A Complete with the right answer from between the brackets:

1. When you use a handbell, the .... energy changes into sound energy. (electrical – kinetic)
2. The most powerful force which changes the desert is .... movement. (water – wind)
3. Using .... in cooking food is one of the benefits of using solar energy. (concave mirrors – electric oven)
4. Deposition plays an important role in the formation of .... (canyon – delta)

B Give reason: There was a sea Covering northern Egypt about 40 million years ago.

....

Question (2)

A Put (✓) or (✗):

1. Turbines convert kinetic energy into electrical energy. ( )
2. Canyons and Valleys have steep high walls. ( )
3. The Color of Canyons differs according to the type of rocks forming it. ( )
4. Rivers erode rocks and can form valleys and canyons. ( )

B Cross out the odd word:

Canyons – Landslide – Valley - Delta (............)

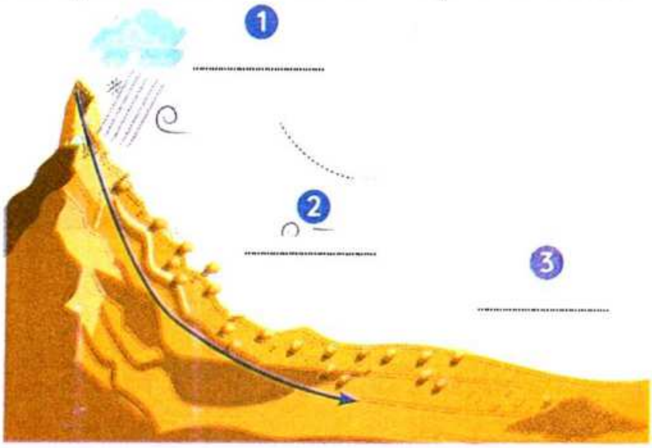
Question (3)

A Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 The sun	a. From non-renewable energy sources.
2 Coal	b. From Factors affecting the formation of fossil fuels.
3 Pressure and temperature	c. The main energy source on the Earth's surface.
	d. Converting wind energy into electrical energy.

1 .... 2 .... 3 ....

B Complete the spaces with suitable processes:



Model Exam 11

Question (1)

A Complete with the right answer from between the brackets:

1 In a battery of a toy car .... energy changes into electrical energy. (chemical – sound)

2 .... Dunes are always formed by waves of sea. (Small - Large)

3 .... moving rivers can cause a lot of erosion. (Slow - Fast)

4 To avoid air pollution, we must use .... resources such as water. (renewable – non-renewable)

B Cross out the odd word:

flash floods – valleys – hurricanes – landslides (............)

Question (2)

A Put (✓) or (✗):

1. When pedaling a bike, the chemical energy in your body changes to kinetic energy. ( )
2. The produced sound energy doesn't help the blender do its job. ( )
3. The electricity produced by water is known as electromagnetic energy. ( )

A Study the below figures then complete the following:



Figure (1)



Figure (2)

1. Figure (......) represents mechanical weathering.
2. Figure (......) represents chemical weathering.

Question (3)

A Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 A famous canyon in North America	a. Valley.
2 Gently sloped sides	b. Grand canyon.
3 Special types of valley with steep sides.	c. Canyon.
4 usually has a triangled-shape	d. Slits.
5 Very fine bits of sand, clay or rock materials	e. Delta.

1 .... 2 .... 3 .... 4 .... 5 ....

B Give reason: The noise from a hair dryer seems like "lost energy".

....

Model Exam 12

Question (1)

A Choose the correct answer:

1. A plugged-in lamp can turn .... energy to .... energy.
   a. electrical - light b. kinetic - light
   c. chemical - light d. chemical - heat
2. Acid rain is formed when .... gas combines with rain water.
   a. oxygen b. carbon dioxide c. hydrogen d. helium
3. Large Sand dunes are formed by ....
   a. water wave b. wind c. heat d. rains
4. .... is a landform with high, steep and narrow walls.
   a. Delta b. Dune c. Valley d. Canyon

B **Give reason:** It's hard to see the action of weathering.

....

Question (2)

A Write the scientific term:

1. The energy resources that includes wind energy and water energy. (............)
2. The gas that causes the red-colored rust on some rock. (............)
3. A device in the electric power station that changes the kinetic energy into electrical energy. (............)

B Give an example for:

1. An earth feature formed by deposition of sediments. (............)
2. An earth feature formed by erosion by water of rivers. (............)

Question (3)

A **Choose from column (A) what suits it in column (B):**

Column (A)	Column (B)
1 Solar panels	a. is used in cooking food.
2 Concave mirrors	b. It was used to grind grain.
3 Old windmills	c. used to generate electricity from solar energy.
	d. Convert kinetic energy into electrical energy.

1 .... 2 .... 3 ....

B **What happens when:** The remains of marine were buried under the Erath's surface over millions of years.

....

Model Exam 13

Question (1)

A **Put (✓) or (✗):**

1. Mars Curiosity can be operated from a distance. (   )
2. Earth surface is stable as time passes. (   )
3. Thermal energy produced in hair dryer doesn't help the device to perform its function. (   )
4. Sometimes you can see erosion happening. (   )

B **Study the following figure then complete:**



Figure (1)



Figure (2)

1. Figure (..........) is formed by a river meeting a sea.
2. Figure (..........) is formed by wind or waves of water.
3. .... Process effect on the formation of both of them.

Question (2)

A Complete with the right answer from between the brackets:

1. .... changes the structure of lakes and causes death of fish. (Acid rain – Global warming)
2. .... runs out faster than we consume it. (Fossil fuel – Biofuel)
3. .... is made of very fine bits of sand, clay and rock materials. (Boulder – Silts)
4. Scientists call each layer of sedimentary rocks a .... (fossil – formation)

B Cross out the odd word:

weathering – photosynthesis – deposition – erosion. (..................)

Question (3)

A Complete the following:

1. Types of energy produced from washing machines are .... energy and .... energy.
2. Canyons are a special type of .... with .... Walls.
3. In electric heater, ... energy is considered as an input energy.
4. We can use some forms of fuel such as .... and .... in warming houses.

B From the opposite figure:



1. What is the name of this device?
2. The change of energy is from .... energy to .... energy.

Model Exam 14

Question (1)

A Complete with the right answer from between the brackets:

1. An example of renewable sources is .... (coal - wind)
2. Curiosity Rover is designed to explore ....
(Mars planet - The Moon)
3. .... weathering causes a completely new different matter.
(Mechanical - Chemical)
4. Coal is a type of fuel, which is used in all the following purposes except .... (warming houses - operating TV)

B Arrange the following steps:

a. (......) The small streams are joined together to form bigger streams
b. (......) Gravity pulls rainwater downhill
c. (......) Big streams or rivers carve out valleys as the water rushes across the land

Question (2)

A Put (✓) or (✗):

1. Valleys are wider than canyons. ( )
2. Coal is the oldest fuel that has been used all over the world by ancient. ( )
3. Delta is a common landform in sandy desert and beach. ( )

B Mention two ways to conserve fossil fuel:

....

Question (3)

A Complete the following:

1. To keep playing with a toy car, we have to .... the batteries.
2. .... weathering changes matter greater than .... weathering.
3. When wind turbines rotate, ... energy is converted into .... energy.

B Complete the following diagram:-

.... used to operate → Electric bulb produces → ....
....

Model Exam 15

Question (1)

A Put (✓) or (✗):

1. The produced sound energy helps the hair dryer to do its function. (   )
2. Air in the desert can be a powerful force to change landforms. (   )
3. After 10 years, the sandcastle that Adam built will look the same. (   )

B Classify the following resources in this table

(Coal - natural gas – oil – Wind – Solar energy – Wood)

Renewable	Nonrenewable
....	....
....	....

Question (2)

A Write the scientific term:

1. The energy that is produced from the blender and helps it in doing its job. (....................)
2. It is any substance which produces thermal energy when burning. (....................)
3. A type of a electrical energy generated by water turbines in dams. (....................)
4. A part of a plant that breaks down rock as they grow. (....................)

Question (3)

A Complete the following:

1. Cars smog causes irritation of .... and .... of humans.
2. .... formed by deposition of sediments of river in the sea.
3. .... Is a fast change to the earth surface while .... happens in millions of years.

B Study the below figures, then complete the following:



Figure (1)

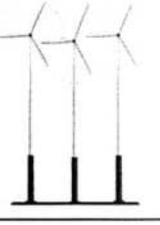


Figure (2)

1. Which one of them generates electric energy?

....

2. What is the input energy for these figures?

....

Model Exams Answers

Model Exam 1

Question 1

A 1 b 2 c 3 a 4 b

B 1 (Thermal energy)
2 (Oil or natural gas)

Question 2

A 1 ✓ 2 ✗ 3 ✓ 4 ✗

B (Mudslide)

Question 3

A 1 c 2 a 3 b

B Because if rocks become eroded then they must be deposited and if you see a deposit of sand, this means it has already been eroded.

Model Exam 2

Question 1

A 1 c 2 b 3 c 4 b

B name of river

Question 2

A 1 ✗ 2 ✓ 3 ✗ 4 ✗ 5 ✗

B Because Wind, water, and weather can change Earth's surface by moving materials to different places.

Question 3

A 1 electrical
2 waterfall - wind 3 natural gas

B (Number 2)

Model Exam 3

Question 1

A 1 d 2 c 3 c 4 c

B Due to the presence of fertile soil.

Question 2

A 1 ✗ 2 ✓ 3 ✗ 4 ✓

B 1 (Dam) 2 (canyon)
3 (Sand dunes)

Question 3

A 1 thermal energy
2 Charcoal - coal

B You will feel heat as electric lamp converts electrical energy into light and heat energies.

Model Exam 4

Question 1

A 1 d 2 c 3 b 4 c

B Deers

Question 2

A 1 (Law of conservation of energy)
2 (Liquid fuel)
3 (Solar panels)
4 (Erosion)

B To understand what the area looked like during the ancient time

Question 3

A 1 ✓ 2 ✗ 3 ✓ 4 ✓

B 1 size of river 2 speed of river
3 Age of river

Model Exam 5

Question 1

A
1. b
2. c
3. c
4. b

B
1. (M)
2. (C)

Question 2

A
1. ✗
2. ✗
3. ✗
4. ✓

B Because robots on mars are too far from local stores or sockets (plugs) on Earth

Question 3

A
1. electrical
2. kinetic - electrical
3. Lichens

B The river could be wider and the curves could be bigger.
The river may dry up and leave a small gully

Model Exam 6

Question 1

A
1. c
2. b
3. d

B (a) (3). (b) (2). (c) (4) (d) (1)

Question 2

A
1. ✗
2. ✓
3. ✗

B
1. (Global warming)
2. (Chemical weathering)

Question 3

A
1. c
2. d
3. b

B Mudslide

Model Exam 7

Question 1

A
1. a
2. a
3. b
4. c

B When fossil fuels burn, they produces carbon dioxide gas that cause:
(a) Air pollution (b)Acid rain
(c) Global warming

Question 2

A
1. ✓
2. ✗
3. ✗
4. ✗

B Because the chemical energy stored in food is converted into kinetic energy that helps your body move

Question 3

A
1. (Erosion).
2. (Weathering).
3. (Deposition).

B
1. Growing plants that don't require watering.
2. Not polluting water

Model Exam 8

Question 1

A
1. electricity
2. fuel
3. Force
4. thermal

B Because chemical weathering causes a completely new different matter while mechanical weathering causes the matter to break into small pieces without changing it

Question 2

A
1. ✗
2. ✗
3. ✗
4. ✗

B
1. (Weathering)
2. (Valleys)

Question 3

A
1. b
2. d
3. c

B
1. 1
2. Sea

Model Exam 9

Question 1

A 1 longer than 2 wood 3 canyons 4 wires

B The gully may get deeper.

Question 2

A 1 ✓ 2 ✓ 3 ✓ 4 ✓

B 1 Turn off the lights we don't need.
2 Unplug electrical appliances after using them

Question 3

A 1 (Sound energy)
2 (Non-renewable source)
3 (Generator) 4 (Lichens)

B The root of plants slow down the water movement, which increases the deposition process.

Model Exam 10

Question 1

A 1 kinetic 2 wind
3 Concave mirrors 4 delta

B Because geologists found in this layer many skeletons of whale ancestor , sea Cow, Shark teeth, turtle and crocodilians.

Question 2

A 1 ✓ 2 ✗ 3 ✓ 4 ✓

B landslide

Question 3

A 1 c 2 a 3 b

B 1 Weathering 2 Erosion
3 Deposition

Model Exam 11

Question 1

A 1 Chemical 2 Small
3 Fast 4 Renewable

B valleys

Question 2

A 1 ✓ 2 ✓ 3 ✗

B 1 Figure (2) 2 Figure (1)

Question 3

A 1 b 2 a 3 c 4 e 5 d

B Because sound energy does not help the hair dryer do its main Job.

Model Exam 12

Question 1

A 1 a 2 b 3 b 4 d

B Because it happens over a long period of time.

Question 2

A 1 (Renewable resource)
2 (Oxygen gas) 3 (Generator)

B 1 Nile River Delta
2 Grand canyon

Question 3

A 1 c 2 a 3 b

B Oil or natural gas will be formed.

Model Answers

Model Exam 13

Question 1

A 1 ✓ 2 ✗ 3 ✗ 4 ✓

B 1 Figure (1) 2 Figure (2)

3 deposition

Question 2

A 1 Acid rain 2 fossil fuel

3 silts 4 formation

B photosynthesis

Question 3

A 1 Kinetic – sound

2 Valleys – narrow (steep)

3 Electrical 4 Coal – wood

B (a) solar panels

(b) solar – electrical

Model Exam 14

Question 1

A 1 wind 2 Mars planet

3 Chemical 4 operating TV

B b - a - c

Question 2

A 1 ✓ 2 ✗ 3 ✗

B 1 Walking or biking instead of driving a car.

2 Turning of the lights when you aren't in a room.

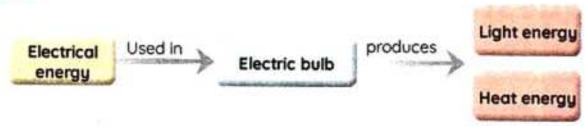
Question 3

A 1 replace

2 chemical – mechanical

3 kinetic – electrical

B



Model Exam 15

Question 1

A 1 ✗ 2 ✗ 3 ✗

B

Renewable	Nonrenewable
Wind - Solar energy - Wood	Coal - natural gas - oil

Question 2

A 1 Kinetic energy

2 Fuel

3 hydroelectric energy

4 Plant roots

Question 3

A 1 human's eyes – lungs

2 Delta

3 mudslide - canyon

B 1 Figure (2)

2 Kinetic energy